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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,397	03/17/2005	Paul Royston Harvey	PHNL020845US	5014

7590 01/17/2007  
Philips Intellectual Property & Standards  
595 Miner Road  
Cleveland, OH 44143

EXAMINER
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LARYEA, LAWRENCE N

ART UNIT	PAPER NUMBER
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3768

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,397	<b>Applicant(s)</b> HARVEY, PAUL ROYSTON	
	<b>Examiner</b> Lawrence N. Laryea	<b>Art Unit</b> 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/17/05</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### *Claim Objections*

1. Claim 13 is objected to because of the following informalities:

At claim 13, line 2, " 0-.5" should read --.5--

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

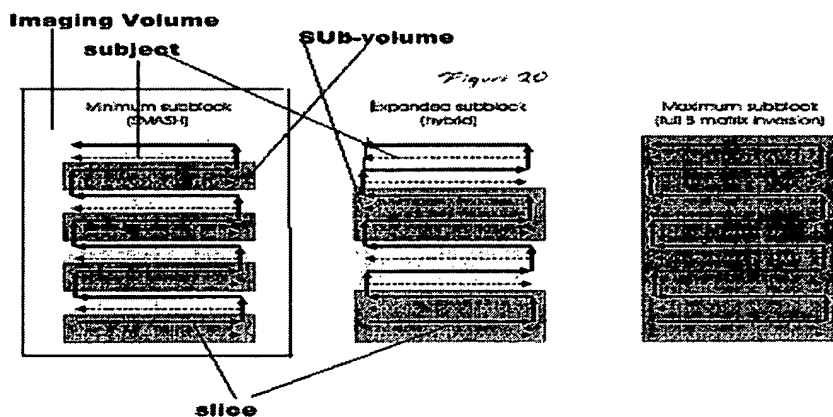
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7,9-14,16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by **Sodickson (Pub 2002/0158632)**.

4. Re claims 1,4,7,9-10-12 and 16:**Sodickson** teach a method of magnetic resonance imaging comprising the steps of: a) providing a magnetic field within an imaging volume, b) moving a subject continuously along a predetermined path, c) defining a sub-volume of the imaging volume, together with the subject, the sub-volume being selected such that the time of movement of the sub-volume within the imaging volume is sufficient for magnetic resonance image data acquisition with a predefined

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resolution, d) performing a step of magnetic resonance image data acquisition for the sub-volume, e) defining a subsequent sub-volume which neighbors the sub-volume on the predetermined path to perform a subsequent step of magnetic resonance image data acquisition for the subsequent sub-volume. (See Figures 20 and 4(a-c) and diagram on the next page.



5. Further Re claims 10 and 12: **Sodickson** teach a magnetic resonance imaging system where a computer system performs steps of imaging and the computer system is configured with a control unit (14) to control signals (RF) of magnetic resonance imaging (See Paragraph [0079] and [0004]).

6. Re claims 2 and 3: **Sodickson** teach a method of magnetic resonance imaging whereby a three-dimensional and a two dimensional imaging method is used for the step of magnetic resonance image data acquisition. (See Paragraph [0201] and Figures 20 and 4(a-c)).

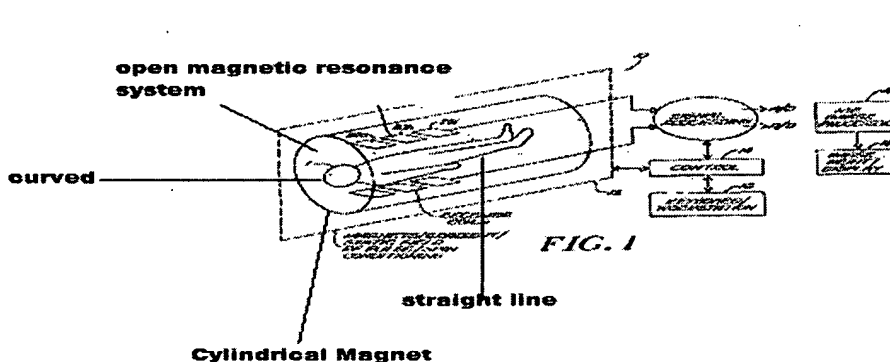
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7. Re claims 5 and 13: **Sodickson** teach a method of magnetic resonance imaging using matrix techniques whereby the speed movement of the subject is of several seconds (See Paragraph [0107] line 7-11 and Paragraph [0012]).

8. Re claims 6,7 and 11: **Sodickson** teach a method of magnetic resonance imaging whereby the magnetic resonance image data acquisition is performed by means of a parallel imaging technique (See Abstract line 1-3 and Paragraph [0156]).

9. Re claim 14: **Sodickson** teach a magnetic resonance imaging comprising a means for a parallel imaging technique based on simultaneous reception through multiple receive channels (See Paragraph [0049] [0047] and [0005] and Fig.1, 20a, 20b and 20i).

10. Re claims 17 and 18: **Sodickson** teach a magnetic resonance imaging whereby the predetermined path being a straight line, curved and the means for providing a magnetic field comprising a cylindrical magnet and an open magnetic resonance system (See Fig. 1) and diagram below



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11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sodickson** in view of **Heid (Patent 6369569)**.

**Sodickson** disclose a magnetic resonance imaging device comprising a control unit for imaging along a path but does expressly disclose that the control unit perform cyclic repetitions of the magnetic resonance image data acquisition.

**Heid** disclose a magnetic resonance imaging device comprising a control unit (7) configured with MRI system to perform cyclic repetitions of the magnetic resonance image data acquisition (**See Col. 2, line 20-27 and 42-45 and Abstract**).

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the magnetic resonance imaging device similar to that of **Sodickson** where a control unit configured with MRI system performs cyclic repetitions of the magnetic resonance image data acquisition similar to that of **Heid** in order to save measuring time (**See Col. 3, line 58-65**) as taught by **Heid**.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**McKinnon (Patent 5379766)** disclose an MRI system where MRI data is been cyclically repeated during an imaging.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence N. Laryea whose telephone number is 571-272-9060. The examiner can normally be reached on 9:30 a.m.-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571-272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LNL

  
ELENI MANTIS MERCADER  
SUPERVISORY PATENT EXAMINER

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